NOTICE OF INTENT Department of Natural Resources

Office of Conservation

Title 56:Part I.Chapter 1 (LAC 56:I.Chapters 1-7)

The Louisiana Office of Conservation proposes to amend LAC 56:I.Chapters 1, 3, 5 and 7 in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., and pursuant to the power delegated under the laws of the State of Louisiana. The proposed amendment will address numerous typographical changes and clarifications necessary as a result of Act 437 of 2009 which transferred the duties and responsibilities relative to ground water resources, water wells and drillers from the Department of Transportation and Development, Office of Public Works to the Department of Natural Resources, Office of Conservation.

Note: All modifications have been highlighted. Words in struck through type are deletions to the existing regulations, words underscored are additions.

Title 56 Part I. Water Wells Chapter 1. Registering Water Wells

§101. Authorization

A.-B. ...

C. The rules, regulations and procedures, stated herein, will become effective on November 1, 1985 and supersede the rules, regulations and procedures in effect since July 1, 1975.

§105. Registration of Water Wells and Holes Completed on or after November 1, 1985

A.-G.1. ...

2. If an unregistered well is reworked, deepened or changed in any manner or if screen setting is altered, the proper registration form (DNR-GW-1 or DNR-GW-1S) shall be submitted to the department by the contractor no later than 30 calendar days after the work has been completed. Failure to file the proper registration form may result in enforcement actions including the assessment of civil penalties in accordance with the authority of the Commissioner of Conservation.

H.-J. ...

§113. Definitions

A. ...

Free Flowing Water Well—an artesian well which is allowed to flows, under natural conditions, at or above the ground surface.

<u>Relief Well—any well drilled for the sole purpose of</u> relieving the hydrostatic pressure inside a levee system during times of high water.

Test Hole—an temporary exploratory borehole drilled for the sole purpose of obtaining to obtain geologic, hydrologic and water quality data.

Chapter 3. Water Well Construction

§301. Preamble

A. As announced in the October 1985 issue of the *Louisiana Register*, the rules, regulations and standards for constructing water wells and holes were prepared by the Louisiana Department of Transportation and Development (DOTD), Office of Public Works, in accordance with R.S. 38:3091 through 38:3098.8. Effective January 1, 2010, in accordance with Act 437 of 2009, The Department of Natural Resources, Office of Conservation, hereafter referred to as *department*, is responsible for registering water wells and holes in Louisiana. The rules, regulations and standards stated herein became effective on November 1, 1985 and supersede the rules, regulations and standards for water well construction which had been in effect since December 20, 1975.

§305. Approval of Plans and Specifications for Public Water Supply Systems

A.- B....

C. In accordance with these legislative directives, the rules, regulations and standards governing construction of public supply water wells were prepared by the DOTD in close cooperation with the Louisiana Department of Health and Hospitals, Office of Public Health (LDHH-OPH) Human Resources, Office of Preventive and Public Health Services, and they are intended to eliminate duplication of efforts and requirements by the two agencies, thereby minimizing cost and optimizing operating efficiencies.

§307. Licensing Requirements

A.-B. ...

C. Drillers operating in the State of Louisiana should, as a best management practice, carry minimum coverage for liability insurance for drilling operations engaged by their company.

§313. Minimum Distance Requirements for Locating a Water Well

A. Provided that all other applicable rules and regulations are complied with, the minimum distance requirements for locating a water well shall be in accordance with the following Subsections.

§315. Location in Relation to Possible Sources of Contamination

A. The horizontal distance between any water well and any possible sources of contamination shall be as great as possible but in no case less than the following minimum distances.

Possible Sources of Contamination	Minimum Distance (in feet)
Septic Tanks	50
Storm or Sanitary Sewer	50 ¹
Cesspools, outdoor privies, oxidation ponds, subsurface absorption fields, pits, etc.	100^{2}
Sanitary landfills, feed lots, manure piles, solid-waste dumps and similar installations	100
Another water well	25 ³
Drainage canal, ditch, stream, pond or lake	50^{4}

This distance may be reduced to 30 feet if the sewer is of cast iron with leaded joints or schedule 40 plastic pipe with water-tight joints.

§317. Location in Relation to Levees

A. Wells or holes as defined in Part I, except relief wells, shall not be drilled within 250 feet of the levees [R.S. 38:225(6)]. The department interprets this statute to mean that the well or wells shall be at least 250 feet from the land side toe of the levee. For this agency to consider any exception to the above, written approval from the appropriate local authorities such as levee boards or the Corps of Engineers is necessary and should be submitted with the variance request.

В. ..

C. Requirements for relief wells located within 250 feet from the land side toe of the levee include:

1. Written approval from the Corps of Engineers and the local levee authority, if applicable, and;

2. Minimum construction standards for grouting down to at least 10 feet from the ground surface and a one-way check valve.

§319. Location in Relation to Flood Water

A. Locations subject to flooding should be avoided, if possible. If a reasonable alternate site does not exist, the well may be constructed in flood-prone areas provided the top of the casing is at least 2 feet above the highest flood level which may have occurred in a 10-year period but in no case less than 2 feet above the ground surface, except when located in coastal areas along the Gulf of Mexico prone to direct impact of storm surge events. Wells with a casing size of 4 inches or less located in coastal areas prone to direct impact of storm surge events shall be constructed with: a) well casing material strength of S/40 PVC or greater and a maximum casing height of 24 inches above ground surface; b) protective casing material strength of S/80 PVC or greater with a diameter size providing a minimum 3 inch space between the well casing outer diameter and the outer diameter of the protective casing; c) protective casing height of 20 to 22 inches above ground surface and a minimum depth below ground surface to 38 inches or greater; d) spacing between the protective casing and the well casing filled with Portland cement; and e) grouting down to a depth of at least 50 feet below ground surface.

§321. Location in Relation to Buildings <u>and Other</u> <u>Structures</u>

A. A well shall be located far enough from a building to allow reworking or rehabilitation with a drilling rig. A well shall not be located below ground surface, such as in pits and basements, and shall not be located within the foundation of a building, except a building constructed solely to house pumping and water system equipment.

B. For rig supply wells, if the well is located on the constructed work pad for drilling operations or within the ring levee system, it must be constructed with four protective corner posts. If the well is located outside the ring levee system and will be transferred for some other future use or will not be plugged and abandoned within six months of completion of associated oil and gas well drilling activity, it must be surrounded by four protective corner posts. The corner posts shall be constructed of 4 inch diameter metal pipe not less than schedule 40 and shall be concreted below the ground surface not less than four feet and shall extend above the ground surface not less than three feet.

§323. Drilling and Construction

A.-C.2. ...

²For domestic water wells, this distance may be reduced to 50 feet.

³This minimum distance requirement does not take into consideration the effects of interference from pumping nearby wells in the same

⁴Horizontally measured from the water edge to the well at the highest water level which may have occurred in a 10 year period.

3. record any unusual occurrences, such as loss of circulation, cave-ins, etc., (In the event the unusual occurrence is observable evidence of naturally occurring methane gas, natural gas or similar sub-surface gas, such as bubbling drilling mud or gas venting at the well bore or other nearby surface location or feature, the contractor shall report such event verbally to the Environmental Division of the Office of Conservation within twenty-four hours); and

C.4.-J.1. ...

2. During the drilling operation, the contractor shall take the necessary precautions to provenprevent the contamination of any aquifer and the exchange of waters between aquifers.

§325. Casing

A.-H.1. ...

2. The well casing pipe, couplings, cement, primer and other compounds shall be evaluated and listed as conforming with both ANSI/NSF Standard 14 and ANSI/NSF Standard 61. approved for use as a well casing in potable water supplies by the National Sanitation Foundation (NSF) Testing Laboratories, Inc., Box 1468, Ann Arbor, Michigan 48106.

H.3.-J.4. ...

- 5. Exposed PVC casings shall be protected from ultraviolet degradation by appropriate coatings as recommended by the manufacturer.
- K. Height of Casing. Well casing shall project at least one foot above ground level, pump-house floor, or the top of concrete slab. For wells in areas subject to flooding, refer to §319.A 103.I. The ground surface or concrete slab around the well shall be sloped to drain away from the well in all directions.

§327. Screen

A.-B. ...

C. Screen Material. The type of screen material is generally dependent upon cost and the quality of water to be pumped. If the water contains a relatively high concentration of carbon dioxide, dissolved solids or hydrogen sulfide, corrosion-resistant materials should be used in the construction of the screen. If a corrosive environment is present, the screen should be made entirely of the same material, and the lap or extension pipe (for not less than 5 feet) above the screen and blank pipe, if used, should be made of the same material as the screen. The likelihood of corrosion and encrustation can also be decreased by

maintaining the entrance velocity within acceptable limits, 0.1 foot per second or less.

§329. Methods and Standards for Cementing the Annular Space

A. ...

- B. Methods for Cementing the Annular Space. The following regulations shall apply to all water wells, regardless of use or type.
- 1. Annular space shall be sealed with cement-bentonite slurry, which is a mixture of cement, bentonite and water, consisting of not more than 8 percent bentonite by dry weight of the cement, and a maximum of 10 gallons of water per sack (94 pounds) of cement. Additives, in the approved and proper ratio, may be added to the slurry if required. If the slurry is to be prepared in the field, it is recommended that the bentonite be added after cement and water are thoroughly mixed. Sodium bentonite with a minimum porosity of 10-8 may also be used.

B.2.-B.6. ...

7. If one or more sands between the ground surface and the production sand contain saline water and/or water of objectionable quality, the annular space between the well casing and the hole shall be sealed with cement-bentonite slurry, at a minimum, to a depth of not less than 20 feet below the deepest sand containing the water of objectionable quality unless full depth cementing is required by §329.C.

§331. Well Development and Disinfection

A.-D.1. ...

2. The acceptable amount of sand per unit volume should be between recommended ratios of 1 ounce of sand per 8,000 gallons of water (about 1 milligram per liter) and one ounce per 100 gallons of water (80 milligrams per liter), depending on the use of water. Because of the possibility of damage by sand to plumbing fixtures and industrial equipment and products, the tolerance for sand in water used for public supply, domestic and most industrial purposes is low and should not exceed 5 milligrams per liter. Many wells that are used for public water supply systems have an acceptable ratio of "no sand." The well owner should specify the acceptable limits of the "sand free" water with equal consideration given to the use of the water, the desired production rate, costs, and well development.

E.-F.3. ...

4. Disinfection of Wells. All new wells and existing wells in which repair work has been done shall be disinfected before being put into use, in accordance with Chapter XII of the State Sanitary Code (LAC 51:XII), if water is to be used for drinking, cooking or washing purposes. Negative bacteriological analysis of water, performed by the Louisiana Department of Health and Hospitals, Office of Public Health (LDHH-OPH) Human Resources (DHHR) or by a laboratory certified by the state health officer, shall be required for all public supply and domestic water wells.

§335. Enforcement Actions

A. Provisions addressing enforcement of this Chapter appear in R.S. 38:3096-7.3, as follows.

A.1.-B. ...

C. The penalty provision for falsification of documents required under the provisions of this ChapterPart are therefore criminal in nature and will be enforced through the district attorney having jurisdiction where said violation occurs. It should also be noted that utilization of the United States Mail in the falsification of documents constitutes a violation of Title 18 of the United States Code (Mail Fraud), and such information will be referred to the appropriate United States attorney.

Chapter 5. Plugging and Sealing of Abandoned Water Wells and Holes

§501. Organization

A. As announced in the October 1985 issue of the *Louisiana Register*, the rules, regulations and standards, stated herein, were prepared by the Louisiana Department of Transportation and Development, Office of Public Works, in accordance with R.S. 38:3091-38:3097. Effective January 1, 2010, in accordance with Act 437 of 2009, The Department of Natural Resources, Office of Conservation, hereafter referred to as "department," is responsible for the plugging and sealing of abandoned registering water wells and holes in Louisiana.

B. The rules, regulations and standards, stated herein, became effective on November 1, 1985 and supersede the rules, regulations, standards and methods for plugging and sealing of abandoned water wells and holes which had been in effect since September 1, 1975.

§505. General Rules and Regulations

A. ...

B. Accordingly, the rules, regulations and standards for plugging abandoned water wells and holes stated herein were prepared in response to this legislative directive and were developed in coordination with other state agencies that are also concerned with the protection of the water resources of the state. The regulations and standards are intended to provide for restoration, as nearly as possible, of those subsurface and surface conditions that existed prior to drilling, boring, digging or augering activities; taking into account any changes that may have occurred as a result of "natural stresses."

§509. Exemptions

A. ...

B. Although the cited activities are not covered by R.S. 38:2094, they are not exempted or excepted by state law; therefore, persons, firms, corporations or others dealing with the cited activities should contact the appropriate regulating agencies for further information and should take any and all action necessary to protect the water resources of the state from contamination. The exclusion of these activities from these regulations does not in any way remove or establish legal liability for health and safety hazards, contamination, or pollution problems alleged to be caused by persons engaged in the activities cited in the first paragraphSubsection A of this Section.

§513. Variance Requests

Editor's Note: The telephone number listed in §513.A has been changed to (225) 274-4172.*

A. Because of variable hydrologic conditions, differences in well construction, depth, and size, and the irregular occurrence of saltwater sands, the rules, regulations and standards stated herein cannot cover every possible situation. For cases where compliance with the rules, regulations, and standards stated in this chapter herein is impractical, the owner, engineer, or the water well contractor may request a variance and/or clarification on methods specified. Such requests shall be addressed to the department as follows:

Louisiana Department of Natural Resources Office of Conservation P.O. Box 94275 Baton Rouge, LA 70804-9275 Phone: (225) 342-5562

§525. Availability of Water Well Data

A. The drilling and construction records for a water well or test hole may be obtained from the owner, from the water well contractor, and/or from one of the following governmental agencies:

Louisiana Department of Natural Resources

Office of Conservation P.O. Box 94275 Baton Rouge, LA 70804-9275 Phone: (225) 342-8244

or

U.S. Geological Survey Water Resources Division Box 66492 Baton Rouge, LA 70896

B. ...

C. Information on monitoring wells may be obtained from the owner, the water well contractor, the engineer, the Department of <u>Transportation and Development Natural Resources</u>, as listed above, and/or from the following agency:

Department of Environmental Quality Galvez Bldg. 602 North Fifth Street Baton Rouge, LA 70802

Chapter 7. Installing Control Devices on Free Flowing Water Wells

§701. Authorization

A. As announced in the October 1985 issue of the *Louisiana Register*, the rules and regulations, stated herein, were prepared by the Louisiana Department of Transportation and Development, Office of Public Works, in accordance with R.S. 38:3094(7)(A). Effective January 1, 2010, in accordance with Act 437 of 2009, The Department of Natural Resources, Office of Conservation, hereafter referred to as "department," is responsible for the installation of control devices on free flowing registering water wells and holes in Louisiana.

B. The rules and regulations, stated herein, became effective on November 1, 1985 and supersede the rules and regulations which had been in effect since June 1, 1977.

§703. Purpose

A. The purpose of the rules and regulations, stated herein, is to conserve the ground water resources of the state by requiring that the owner install control devices on free flowing water wells (for glossary of terms, refer to §113.A of this Chapter) producing in excess of 25,000 gallons per day. To accomplish this requirement, the owner shall install a flow control device on each free flowing water well in accordance with the rules and regulations stated in this Section.

§705. General Rules and Regulations

A. The rules and regulations, stated herein, apply to all free flowing water wells producing in excess of 25,000

gallons per day. A free flowing well is an artesian well which is allowed to flow, under natural conditions, at or above the land surface.

- B. Exemptions. The following water wells are exempt from the provisions of this Chapter:
- 1. free flowing water wells in existence prior to January 1, 2012; however, wells reworked after January 1, 2012 shall not be exempt. producing 25,000 gallons per day or less;
- 2. water wells producing saline water in connection with oil and gas production.
- C. Determination of Yield. The department will measure the yield of the free flowing water well at no cost to the owner. If the owner disagrees with the measurement made by the department and wishes to have a third party measure the yield, the costs shall be borne by the owner. The method used to measure the well yield shall be acceptable to the department.
- D.—Wells In a State of Disrepair or Nonuse. If a water well is in such a state of disrepair that it cannot be used and a control device cannot be installed, it shall be considered abandoned and shall be plugged by the owner in accordance with the provisions of Chapter 5 of this Part, entitled "Rules, Regulations and Standards for Plugging Abandoned Water Wells and Holes".

§707. Responsibility of the Owner

- A. The owner shall be the party responsible for installing a flow control device on each free flowing water well producing in excess of 25,000 gallons per day.
- B. The owner shall allow representatives of the department to enter the property and visit the well site to measure the well yield, verify the installation of a control device, or inspect the completed work.

§709. Responsibility of the Department

- A. The department will measure the yield of the free flowing water well at no cost to the owner.
- B. It shall be in the sole responsibility of the department to determine whether a control device should be installed on a well.
- C. At the request of a parish police jury or other governmental entity, the department may make a survey to locate and report on the location of free flowing water wells.
- D. The department may enter into a financial cooperative agreement with the parish police jury or other governmental entity to have control devices installed on

those free flowing water wells which produce over 25,000 gallons per day.

E....

- F. The department, upon receiving information on the existence of a free flowing water well, shall proceed as follows:
- 1. arrange to measure the yield of the well and determine whether a control device should be installed;
- 2. if a control device is required, the department will issue an order to the owner to require the installation of a control device on the well within 90 calendar days from the date of the said order. When the installation of the control device is completed, the owner shall apprise the department, in writing, within 30 calendar days after completion of work.

James H. Welsh, Commissioner Office of Conservation